

In the claims:

Please add claims 54-61.

~~17~~ (Previously added) A polishing pad for a chemical mechanical polishing apparatus, comprising:  
an article having a polishing surface and a surface opposite the polishing surface for attachment to a platen;  
a solid substantially transparent section formed in the polishing surface; and  
an aperture formed in the surface opposite the polishing surface and aligned with the transparent section.

~~18~~ (Previously added) The polishing pad of claim ~~17~~, wherein the article includes a first layer with the polishing surface and a second layer adjacent to the first layer.

~~19~~ (Previously added) The polishing pad of claim ~~18~~, wherein the transparent section extends through the first layer.

~~20~~ (Previously added) The polishing pad of claim ~~18~~, wherein the aperture extends through the second layer.

~~21~~ (Previously added) The polishing pad of claim ~~17~~, wherein the transparent section and the aperture have substantially the same dimension.

~~22~~ (Previously added) The polishing pad of claim ~~17~~, wherein a top surface of the transparent section is substantially coplanar with the polishing surface.

~~23~~ (Previously added) A polishing pad for a chemical mechanical polishing apparatus, comprising:  
a first layer having a polishing surface and a solid substantially transparent section; and

a second layer adjacent to the first layer having an aperture substantially aligned with the transparent section.

<sup>8</sup>  
~~24~~. (Previously added) The polishing pad of claim <sup>7</sup>~~23~~, wherein the first layer is formed of a polyurethane material.

<sup>9</sup>  
~~25~~. (Previously added) The polishing pad of claim <sup>7</sup>~~23~~, wherein the transparent section is formed of a polyurethane material.

<sup>10</sup>  
~~26~~. (Previously added) The polishing pad of claim <sup>7</sup>~~23~~, wherein the second layer is a backing layer.

<sup>11</sup>  
~~27~~. (Previously added) A polishing pad for a chemical mechanical polishing apparatus, comprising:

an article having a polishing surface and a solid substantially transparent section, the transparent section having a first portion with a first dimension and a second portion with a second, different dimension.

<sup>12</sup>  
~~28~~. (Previously added) The polishing pad of claim <sup>11</sup>~~27~~, wherein the article includes a first layer with the polishing surface and a second layer adjacent to the first layer.

<sup>13</sup>  
~~29~~. (Previously added) The polishing pad of claim <sup>12</sup>~~28~~, wherein the transparent section extends through the first and second layers.

<sup>14</sup>  
~~30~~. (Previously added) The polishing pad of claim <sup>13</sup>~~29~~, wherein the first section of the aperture extends through the first layer and the second section of the aperture extends through the second layer.

<sup>15</sup>  
~~31~~. (Previously added) A chemical mechanical polishing apparatus, comprising:  
a carrier head to hold a substrate;

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a polishing pad having a polishing surface and a surface opposite the polishing surface, the polishing pad including a first layer having a polishing surface with a solid substantially transparent section and a second layer adjacent to the first layer having an aperture substantially aligned with the transparent section; and

a motor to generate relative motion between the carrier head and the polishing pad.

16  
32. (Previously added) The apparatus of claim 31, further comprising a platen to support the polishing pad.

17  
33. (Previously added) The apparatus of claim 32, wherein the second layer abuts the platen.

18  
34. (Previously added) The apparatus of claim 33, wherein a passage is formed in the platen, and the passage is substantially aligned with the aperture in the polishing pad.

19  
35. (Previously added) The apparatus of claim 31, further comprising an optical monitoring system configured to direct a light beam through the aperture and the transparent section to impinge the substrate and measure reflections of the light beam from the substrate.

20  
36. (Previously added) The apparatus of claim 31, wherein the transparent section and the aperture have substantially the same dimension.

21  
37. (Previously added) A polishing pad for a chemical mechanical polishing apparatus, comprising:

an article having a polishing surface;

an aperture formed in the article; and

a substantially transparent plug secured in the aperture, wherein the plug includes a first section with a first lateral dimension and a second section with a second, different lateral dimension.

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<sup>22</sup>  
38. (Previously added) The polishing pad of claim <sup>21</sup>37, wherein the first section of the plug is closer to the polishing surface.

<sup>23</sup>  
39. (Previously added) The polishing pad of claim <sup>22</sup>38, wherein the first lateral dimension is smaller than the second lateral dimension.

<sup>24</sup>  
40. (Previously added) The polishing pad of claim <sup>21</sup>37, wherein article includes a polishing layer with the polishing surface and a backing layer.

<sup>25</sup>  
41. (Previously added) The polishing pad of claim <sup>24</sup>40, wherein the aperture includes a first portion in the polishing layer and a second portion in the backing layer, and the first and second portions have different cross-sectional dimensions.

<sup>26</sup>  
42. (Previously added) The polishing pad of claim <sup>25</sup>41, wherein the first section of the plug is positioned in the first section of the aperture and the second portion of the plug is positioned in the second section of the aperture.

<sup>27</sup>  
43. (Previously added) The polishing pad of claim <sup>21</sup>37, wherein article includes a polishing layer having an underside, the first section of the plug is positioned in the aperture, and the second section of the plug the underside of the polishing layer.

<sup>28</sup>  
44. (Previously added) The polishing pad of claim <sup>27</sup>43, wherein the second section of the plug is secured to the underside of the polishing layer.

<sup>29</sup>  
45. (Previously added) The polishing pad of claim <sup>28</sup>44, wherein the second section of the plug is adhesively attached to the underside of the polishing layer.

<sup>30</sup>  
46. (Previously added) The polishing pad of claim <sup>21</sup>37, wherein a top surface of the plug is substantially coplanar with the polishing surface.

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<sup>31</sup>  
~~47~~ (Previously added) A polishing pad for a chemical mechanical polishing apparatus, comprising:

a polishing layer having a polishing surface and a bottom surface;

an aperture formed in the polishing layer; and

a substantially transparent plug, wherein the plug includes a first section in the aperture and a second section secured to the bottom surface of the polishing layer.

<sup>31</sup>  
<sup>31</sup>  
~~48~~ (Previously added) The polishing pad of claim ~~47~~, wherein the first section of the plug has a first lateral dimension and the second section of the plug has a second, different lateral dimension.

<sup>33</sup>  
~~49~~ (Previously added) The polishing pad of claim ~~48~~, wherein the first lateral dimension is smaller than the second lateral dimension.

<sup>34</sup>  
~~50~~ (Previously added) The polishing pad of claim ~~47~~, wherein the second section of the plug is adhesively attached to the bottom surface of the polishing layer.

<sup>35</sup>  
~~51~~ (Previously added) The polishing pad of claim ~~47~~, further comprising a backing layer.

<sup>36</sup>  
~~52~~ (Previously added) The polishing pad of claim ~~51~~, wherein the backing layer includes an aperture aligned with the transparent plug.

<sup>37</sup>  
~~53~~ (Previously added) The polishing pad of claim ~~47~~, wherein a top surface of the transparent section is substantially coplanar with the polishing surface.

<sup>38</sup>  
~~54~~ (New) A polishing pad for a chemical mechanical polishing apparatus, comprising:

an article having a polishing surface and a surface opposite the polishing surface for attachment to a platen; and

a solid substantially transparent section formed in the polishing surface, wherein the transparent section diffuses light passing therethrough.

<sup>39</sup>  
~~55~~. (New) The polishing pad of claim <sup>38</sup>~~54~~, wherein a top surface of the transparent section is flush with the polishing surface.

*AL* <sup>40</sup>  
~~56~~. (New) The polishing pad of claim <sup>38</sup>~~54~~, wherein a bottom surface of the transparent section is flush with the surface opposite the polishing surface.

*Ed  
C. Hurd*  
<sup>41</sup>  
~~57~~. (New) The polishing pad of claim <sup>38</sup>~~54~~, wherein the article includes a first layer with the polishing surface, a second layer adjacent to the first layer, and wherein the transparent section is formed in the first layer and an aperture is formed in the second layer and aligned with the transparent section.

<sup>42</sup>  
~~58~~. (New) The polishing pad of claim <sup>38</sup>~~54~~, wherein the transparent section has a diffuse surface.

<sup>43</sup>  
~~59~~. (New) The polishing pad of claim <sup>42</sup>~~58~~, wherein the diffuse surface comprises sanding of a surface of the transparent section.

<sup>44</sup>  
~~60~~. (New) The polishing pad of claim <sup>42</sup>~~58~~, wherein the diffuse surface comprises a coating on a surface of the transparent section.

<sup>45</sup>  
~~61~~. (New) The polishing pad of claim <sup>42</sup>~~58~~, wherein the diffuse surface comprises a bottom surface of the transparent section.